AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-16 (Canceled)

17. (New) A process for providing or promoting the adhesion of a film-forming composition to a metal surface comprising the step of adding as additive to said composition a block copolymer, whose at least one block has phosphate functional groups and/or phosphonate functional groups, said copolymer optionally being dissolved in a solvent, water or a water/alcohol mixture.

18. (New) A process for protecting a metal surface from corrosion comprising the step of adding as additive to a film-forming composition to be applied to said surface, a block copolymer, whose at least one block has phosphate functional groups and/or phosphonate functional groups, said copolymer optionally being dissolved in a solvent, water or a water/alcohol mixture.

19. (New) The process as claimed in claim 17, wherein the metal surface is an alkali metal, alkaline earth metal, a transition metal, aluminum, gallium, indium, thallium, silicon, germanium, tin, lead, arsenic, antimony, bismuth, tellurium, polonium, astatine, their oxides or their alloys.

20. (New) The process as claimed in claim 19, wherein the metal surface is aluminum, duralumin, zinc, tin, copper, copper alloy, bronze, brass, iron, steel, optionally stainless or galvanized, silver or vermeil.

21. (New) The process as claimed in claim 17, wherein the block having phosphate and/or phosphonate functional groups is a homopolymer based on a monomer comprising phosphate or phosphonate functional groups.

22. (New) The process as claimed in claim 17, wherein the block having phosphate and/or phosphonate functional groups is a random polymer based on at least one monomer comprising one or other of said phosphate or phosphonate functional groups or their mixtures in an amount of between 0.1 and 100% by weight of said monomers with respect to the total weight of the block.

23. (New) The process as claimed in claim 22, wherein the amount of said monomers is between 0.5% and 50% by weight of said monomers with respect to the total weight of the block.

24. (New) The process as claimed in claim 22, wherein the amount of said monomers is between 2% and 20% by weight of said monomers with respect to the total weight of the block.

25. (New) The process as claimed in claim 21, wherein the monomer comprising phosphate or phosphonate functional groups is:

- N-methacrylamidomethylphosphonic acid ester derivative,
- N-methacrylamidoethylphosphonic acid ester derivative,
- N-acrylamidomethylphosphonic acid ester derivative,
- vinylbenzylphosphonate dialkyl ester derivative,
- diethyl 2-(4-vinylphenyl)ethanephosphonate,
- dialkylphosphonoalkyl acrylate and methacrylate derivatives,

- vinylphosphonic acid, optionally substituted by cyano, phenyl, ester or acetate groups, vinylidene- phosphonic acid, in the sodium salt form or the form of its isopropyl ester, or bis(2-chloroethyl)vinylphosphonate,
- acrylate of polyethylene glycol omega phosphates,
- methacrylate of polyethylene glycol omega phosphates,
- acrylates of polypropylene glycol omega phosphates, or
- methacrylate of polypropylene glycol omega phosphates.

26. (New) The process as claimed in claim 25, wherein the monomer comprising phosphate or phosphonate functional groups is:

N-methacrylamidomethylphosphonic n-propyl ester,

N-methacrylamidomethylphosphonic methyl ester,

N-methacrylamidomethylphosphonic ethyl ester,

N-methacrylamidomethylphosphonic n-butyl ester,

N-methacrylamidomethylphosphonic isopropyl ester,

N-methacrylamidomethylphosphonic diacid,

N-methacrylamidoethylphosphonic acid dimethyl ester.

N-methacrylamidoethylphosphonic acid di(2-butyl-3,3-dimethyl) ester

N-methacrylamidoethylphosphonic diacid,

N-acrylamidomethylphosphonic acid dimethyl ester,

N-acrylamidomethylphosphonic acid diethyl ester,

bis(2-chloropropyl) N-acrylamidomethylphosphonate,

N-acrylamidomethylphosphonic acid,

vinylbenzylphosphonate dialkyl di(n-propyl),

vinylbenzylphosphonate dialkyl ester di(isopropyl),

vinylbenzylphosphonate dialkyl ester diethyl,

vinylbenzylphosphonate dialkyl ester dimethyl,

vinylbenzylphosphonate dialkyl ester di(2-butyl-3,3-dimethyl),

vinylbenzylphosphonate dialkyl ester di(t-butyl),

vinylbenzylphosphonic diacid,

2-(acryloyloxy)ethylphosphonic acid dimethyl ester,

2-(methacryloyloxy)ethylphosphonic acid dimethyl ester,

2-(methacryloyloxy)methylphosphonic acid diethyl ester,

2-(methacryloyloxy)methylphosphonic acid dimethyl ester,

2-(methacryloyloxy)propylphosphonic acid dimethyl ester,

2-(acryloyloxy)methylphosphonic acid diisopropyl ester,

2-(acryloyloxy)ethylphosphonic acid diethyl ester,

2-(methacryloyloxy)ethylphosphonic acid,

2-(methacryloyloxy)methylphosphonic acid,

2-(methacryloyloxy)propylphosphonic acid,

2-(acryloyloxy)propylphosphonic acid, or

2-(acryloyloxy)ethylphosphonic acid.

27. (New) The process as claimed in claim 17, wherein the block copolymer is obtained as the result of a controlled radical polymerization process optionally using, as control agent, a dithioester, thioethers-thione, dithiocarbamate or xanthate, said

polymerization being carried out under bulk conditions, in a solvent or in an aqueous emulsion, so as to directly obtain the copolymer in the form of an aqueous or aqueous/alcoholic solution.

28. (New) The process as claimed in claim 27, wherein the concentration of block copolymer in the film-forming composition is between 0.001 and 20% by mass with respect to the total mass of the solids content of the film-forming composition.

29. (New) The process as claimed in claim 28, wherein the concentration of block copolymer in the film-forming composition is between 0.005 and 10% by mass with respect to the total mass of the solids content of the film-forming composition.

30. (New) The process as claimed in claim 29, wherein the block copolymer in the film-forming composition has a concentration of between 0.01 and 5% by mass with respect to the total mass of the solids content of the film-forming composition.

31. (New) An aqueous film-forming composition, comprising a block copolymer, whose at least one block has phosphate functional groups and/or phosphonate functional groups, wherein the block having phosphate and/or phosphonate functional groups is a homopolymer based on a monomer comprising phosphate or phosphonate functional groups and said copolymer optionally being dissolved in a solvent, water or a water/alcohol mixture.

32. (New) The composition as claimed in claim 31, wherein the block having phosphate and/or phosphonate functional groups is a random polymer based on at least one monomer comprising one or other of said phosphate or phosphonate functional groups or their mixtures in an amount of between 0.1 and 100% by weight of said

monomers with respect to the total weight of the block.

33. (New) The composition as claimed in claim 32, wherein the amount of said monomers is between 0.5% and 50% by weight of said monomers with respect to the total weight of the block.

34. (New) The composition as claimed in claim 33, wherein the amount of said monomers is between 2% and 20% by weight of said monomers with respect to the total weight of the block.

35. (New) The process as claimed in claim 31, wherein the monomer comprising phosphate or phosphonate functional groups is:

- N-methacrylamidomethylphosphonic acid ester derivative,
- N-methacrylamidoethylphosphonic acid ester derivative,
- N-acrylamidomethylphosphonic acid ester derivative,
- vinylbenzylphosphonate dialkyl ester derivative,
- diethyl 2-(4-vinylphenyl)ethanephosphonate,
- dialkylphosphonoalkyl acrylate and methacrylate derivatives,
- vinylphosphonic acid, optionally substituted by cyano, phenyl, ester or acetate groups, vinylidene- phosphonic acid, in the sodium salt form or the form of its isopropyl ester, or bis(2-chloroethyl)vinylphosphonate,
- acrylate of polyethylene glycol omega phosphates,
- methacrylate of polyethylene glycol omega phosphates,
- acrylates of polypropylene glycol omega phosphates, or
- methacrylate of polypropylene glycol omega phosphates.

36. (New) The composition as claimed in claim 35, wherein the monomer comprising phosphate or phosphonate functional groups is:

N-methacrylamidomethylphosphonic n-propyl ester,

N-methacrylamidomethylphosphonic methyl ester,

N-methacrylamidomethylphosphonic ethyl ester,

N-methacrylamidomethylphosphonic n-butyl ester,

N-methacrylamidomethylphosphonic isopropyl ester,

N-methacrylamidomethylphosphonic diacid,

N-methacrylamidoethylphosphonic acid dimethyl ester.

N-methacrylamidoethylphosphonic acid di(2-butyl-3,3-dimethyl) ester

N-methacrylamidoethylphosphonic diacid,

N-acrylamidomethylphosphonic acid dimethyl ester,

N-acrylamidomethylphosphonic acid diethyl ester,

bis(2-chloropropyl) N-acrylamidomethylphosphonate,

N-acrylamidomethylphosphonic acid,

vinylbenzylphosphonate dialkyl di(n-propyl),

vinylbenzylphosphonate dialkyl ester di(isopropyl),

vinylbenzylphosphonate dialkyl ester diethyl,

vinylbenzylphosphonate dialkyl ester dimethyl,

vinylbenzylphosphonate dialkyl ester di(2-butyl-3,3-dimethyl),

vinylbenzylphosphonate dialkyl ester di(t-butyl),

vinylbenzylphosphonic diacid,

2-(acryloyloxy)ethylphosphonic acid dimethyl ester,

2-(methacryloyloxy)ethylphosphonic acid dimethyl ester,

2-(methacryloyloxy)methylphosphonic acid diethyl ester,

2-(methacryloyloxy)methylphosphonic acid dimethyl ester,

2-(methacryloyloxy)propylphosphonic acid dimethyl ester,

2-(acryloyloxy)methylphosphonic acid diisopropyl ester,

2-(acryloyloxy)ethylphosphonic acid diethyl ester,

2-(methacryloyloxy)ethylphosphonic acid,

2-(methacryloyloxy)methylphosphonic acid,

2-(methacryloyloxy)propylphosphonic acid,

2-(acryloyloxy)propylphosphonic acid, or

2-(acryloyloxy)ethylphosphonic acid.

37. (New) The composition as claimed in claim 31, wherein the block copolymer is obtained as the result of a controlled radical polymerization process optionally using, as control agent, a dithioester, thioethers-thione, dithiocarbamate or xanthate, said polymerization being carried out under bulk conditions, in a solvent or in an aqueous emulsion, so as to directly obtain the copolymer in the form of an aqueous or aqueous/alcoholic solution.

38. (New) The composition as claimed in claim 31, wherein the concentration of block copolymer in the film-forming composition is between 0.001 and 20% by mass with respect to the total mass of the solids content of the film-forming composition.

39. (New) The composition as claimed in claim 38, wherein the concentration of

block copolymer in the film-forming composition is between 0.005 and 10% by mass with respect to the total mass of the solids content of the film-forming composition.

40. (New) The composition as claimed in claim 39, wherein the block copolymer in the film-forming composition has a concentration of between 0.01 and 5% by mass with respect to the total mass of the solids content of the film-forming composition.

41. (New) The composition as claimed in claim 31, wherein the composition is an optionally silicone-comprising mastic composition, paint composition or adhesive composition.